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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,582	12/29/2003	Vicki W. Tsai	80107.095US1	8580

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EXAMINER	
FERRIS III, FRED O	
ART UNIT	PAPER NUMBER
2128	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,582	TSAI ET AL.	
	Examiner	Art Unit	
	Fred Ferris	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-17,19,21-24,26-28 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-17,19,21-24,26-28 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/18/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 have been presented for examination based on applicant's disclosure filed 18 December 2006. Applicants have now cancelled claims 4, 5, 18, 20, 25, and 29. Claims 1-3, 6-17, 19, 21-24, 26-28, and 30 are currently pending in this application and remain rejected by the examiner.

Response to Arguments

2. Applicant's arguments filed 18 December 2006 have been fully considered.

Regarding applicants' response to objection to the specification: The examiner withdraws the objection to the specification in view of applicants' amendment to the Abstract filed 18 December 2006.

Regarding applicants' response to objection to the drawings: The examiner withdraws the objection to the drawings in view of applicants' formal drawings filed 18 December 2006.

Regarding applicants' response to 102(e) rejections: Applicants have now amended independent claims 1, 14, 24, and 28 to include new limitations relating to:

- *profiling a design represented by the configurations for the plurality of processing elements; and*
- *changing a power supply voltage value in response to the profiling.*

Responsive to these amendments the examiner refers to applicants'

specification for guidance on the specific meaning of the term "profiling", as it applies to a design represented by "configurations" as now claimed. At paragraph [0037] the specification appears to reveal that profiling (by the system profiler) simply consists of "gathering of information that may be compared against the user constraints to determine the quality of the current configuration. For example, the system profiler 262 may be utilized to determine whether the user specified latency or throughput requirements can be met given the current protocol layout." From this recitation, it would appear that Vanderweed anticipates and/or renders obvious these features because Vanderweed teaches the effects of latency (para:0337, Figs. 27, 28), and the consideration of user constraints (para:0252, 0459), based on circuit layout for a given configuration (para:0567). Further, Vanderweed appears anticipate and/or render obvious the new limitations relating to "changing a power supply voltage value in response to the profiling" as claimed, since Vanderweed teaches that, under certain conditions, it is advantageous to reduce (change) the power supply voltage (para:0047, Figs. 31, 32). Accordingly, the examiner maintains the prior art rejection in view of Vanderweed and now rejects claims 1-3, 6-17, 19, 21-24, 26-28, and 30 under 102/103 as anticipated by or, in the alternative, obvious over Vanderweed responsive to applicants amendment. (See new 102/103 rejections below).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1-3, 6-17, 19, 21-24, 26-28, and 30 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent Application Publication 2004/0006584 A1 issued to Vanderweed.

Regarding independent claims 1, 14, 24, and 28: Vanderweed anticipates and/or renders obvious the claimed method and apparatus limitations of the present invention as follows:

- translating/compiling design description into configuration of processing elements: (para:0015, 0002, 0055-0060, 0085, Figs. 5-15)

- *Setting/determining packet size for communications between element: (para: 0416, 0398, 0434-0439, Figs. 27, 28, 33, 34)*
- *profiling a design represented by the configurations for the plurality of processing elements; and changing a power supply voltage value in response to the profiling: As cited above, at paragraph [0037] the specification appears to reveal that profiling (by the system profiler) simply consists of "gathering of information that may be compared against the user constraints to determine the quality of the current configuration. For example, the system profiler 262 may be utilized to determine whether the user specified latency or throughput requirements can be met given the current protocol layout." From this*

recitation, it would appear that Vanderweed anticipates and/or renders obvious these features because Vanderweed teaches the effects of latency (para:0337, Figs. 27, 28), and the consideration of user constraints (para:0252, 0459), based on circuit layout for a given configuration (para:0567). Further, Vanderweed appears anticipate and/or render obvious the new limitations relating to "changing a power supply voltage value in response to the profiling" as claimed, since Vanderweed teaches that, under certain conditions, it is advantageous to reduce (change) the power supply voltage (para:0047, Figs. 31, 32).

In the alternative, a skilled artisan having access to the teachings of Vanderweed would have been motivated as noted and knowingly implemented the features pertaining to "profiling" based latency and configuration and changing the power supply voltage since Vanderweed teaches that access latency causes "bottlenecks" (para:0035) and the advantages of reducing (changing) power supply voltage (para:0047, Figs. 31, 32).

Per claim 2: partitioning design into functions: (para:0145-0166, Fig. 6)

Per claim 3: coded functions to run on elements: (para:0207-0216)

Per claims 21: PS voltage value: (para:0208, 0278-0282

Per claims 6, 22, 23, 26: Clock frequency: (para:0208, 0386-0391, Figs. 29-32)

Per claims 7-9, 19, 27, 30: Profiling packet size, latency, throughput: (para:0388-0391, Figs.27, 28, Tab. V)

Per claims 10-12: comparing constraints profiling, latency, throughput: (para:0388-0391, Figs. 27, 28)

Per claim 13: modifying profiling parameters: (para:0207-0209, 0388-0398)

Per claims 14-17: configuring/translating packets multiple processing elements: (para:0015, 0002, 0318-0321, 0055-0060, 0085, Figs. 5-15)

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, ***THIS ACTION IS MADE FINAL****. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).*

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778

and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (571) 273 8300

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February 19, 2007

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